

a reasonable expectation of success, and all the claim limitations must be taught or suggested in the prior art.

There is No Suggestion or Motivation to Combine References

The Court of Appeals for the Federal Circuit has stated:

In making the assessment of differences, Section 103 specifically requires consideration of the claimed invention "as a whole." Inventions typically are new combinations of existing principles or features. *Environmental ENVTL Designs Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (Fed. Cir. 1983) (noting that "virtually all [inventions] are combinations of old elements.") The "as a whole" instruction entitled 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an invention into its component parts (A+B+C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone, declare the invention obvious. This form of hindsight reasoning, using the invention as a road map to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result—often varied definition of invention. Section 103 precludes this hindsight discounting of the value of new combinations by requiring assessment of the invention as a whole. This court has provided further assurance of an "as a whole" assessment of the invention under § 103 by requiring a showing that an artisan of ordinary skill in the art at the time of the invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would select the various elements from the prior art and combine them in the claimed manner. In other words, the Examiner or court must show some suggestion or motivation, before the invention itself to make the new combination (citations omitted).

Reiz v. AB Chance Co., 357 F.3d 1270, 1275; 69 U.S.P.Q.2d 1686, 1690 (Fed. Cir. 2004).

The Examiner states:

It would have been obvious to the artisan of ordinary skill to employ the laser of Deak in the method of Sinofsky, since Sinofsky teaches a variety of laser configurations, and since the laser of Deak is simple, requiring few parts and no optical fibers, or alternatively to employ the method of Tucker in the method of Deak, since this provides a medical application
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LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

The Examiner appears to have relied on hindsight to declare the claims obvious, since the motivation to combine references is so vague as to be meaningless and the references teach away from the combination of the Deak patent with either the Sinofsky patent or the Tucker patent. For example, the Sinofsky patent describes lasers preferably include laser crystals having a rare earth ion.

The laser crystal 32 is preferably selected from a variety of rare earth ions in a suitable host material such as yttrium aluminum garnet (YAG), yttrium lithium fluoride (YLF) or yttrium scandium gadolinium garnet (YSGG). The selected rare earth ion depends on the desired output wavelength. In a preferred embodiment, the laser crystal 32 is erbium-doped YAG having an output wavelength of 2.94 micrometers or holmium doped YAG having an output wavelength of 2.06 micrometers. Preferably, the optical fiber 16 is silica for low cost, nontoxicity and flexibility, and the laser crystal 32 is optically pumped by laser radiation in the 0.7 to 0.8 micrometer range.

(Col. 5, lines 28-41). In direct contrast with the Sinofsky patent, the Deak patent does not describe a laser crystal having a rare earth ion. Furthermore, the Sinofsky patent describes the use of an optical fiber. (Col. 4, lines 10-19.) In this respect, the Sinofsky patent further describes, "[t]he laser 18 is energized by laser radiation in a second wavelength range generated by pump laser 12 and carried by optical fiber 22 and optical fiber 16 to laser 18." (Col. 4, lines 40-43.) However, the Examiner states that the laser of the Deak patent requires no optical fibers. Modification of the Sinofsky patent with the Deak patent would result in contradicting the explicit teachings of the Sinofsky patent in, at least, two material respects. It is well established that a proper *prima facie* rejection cannot result in changing the principle of operation of the prior art invention. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." M.P.E.P. § 2143.01, VI., p.2100-138, Rev. 3, August, 2005.

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CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

In regards to the Tucker patent, the Tucker patent describes the use of a melted sealant to heal wounds, and therefore, modification of the Tucker patent to replace the melted sealant with any device intended to produce light energy would change the principle of operation of Tucker.

Accordingly, the withdrawal of the rejection of Claims 1, 5, 7, and 15 is respectfully requested.

The Prior Art References Fail to Teach All the Claim Limitations

The Office Action is silent as to how the Deak patent teaches or suggests all the limitations of the claims. The Office Action merely states that "Deak teaches a laser wherein the output light is generated by sonoluinescence [sic]." The Office Action fails to mention, at least, how or why the references teach or suggest a focusing lens having a flat surface adjacent the wave matching layer and a concave surface adjacent the acoustic conducting medium that focuses sound waves in the acoustic conducting medium, as recited in Claim 1, a housing that is at least partly transparent to sonoluminescent light, as recited in Claim 5, filtering at least a portion of the emitted sonoluminescent light such that only light within a predetermined range of wavelengths is emitted from the source, as recited in Claim 15, and wherein the sonoluminescent light emitted from the source comprises x-ray radiation, as recited in Claim 17.

In contrast to Claim 1, the Deak patent describes an acoustic coupling device 10, which does not have, at least, "a concave surface adjacent the acoustic conducting medium." (Fig. 9, reference no. 10). The Office Action takes official notice of the use of filters. However, a *prima facie* rejection requires that all the claim limitations be taught or suggested by the prior art and an actual suggestion or motivation. However, the Office Action fails to mention how or why a filter is taught or suggested by any reference. Furthermore, the Deak patent does not teach or suggest a housing that is at least partly transparent to sonoluminescent light, as recited in Claim 5, or

wherein the sonoluminescent light emitted from the source comprises x-ray radiation, as recited in Claim 17.

Accordingly, the withdrawal of the rejection of Claims 1, 5, 7, and 15 is respectfully requested.

The Rejection of Claims 17 and 63 Under 35 U.S.C. § 103(a)

Claims 17 and 63 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sinofsky in combination with Deak as applied to Claims 1, 5, 7, and 15 above, and further in view of Puttermann et al.

Claims 17 and 63 depend from Claim 1. Applicant submits that Claim 1 is allowable, therefore, Claims 17 and 63 are also allowable. Furthermore, there is no suggestion or motivation to combine the Puttermann patent with either the Sinofsky patent or the Deak patent.

Accordingly, the withdrawal of the rejection of Claims 17 and 63 is respectfully requested.

Withdrawn Claims 64 and 65

Reconsideration of the withdrawal of Claims 64 and 65 is respectfully requested. Claims 64 and 65 are related to Claims 1, 5, 7, 15, 17, and 63, and examination of Claims 64 and 65 can be made without a serious burden. Though Claims 64 and 65 are independent and distinct, the claims must be examined if there is no serious burden. "If the search and examination of all the claims in an application can be made without serious burden, the examiner must examine them on the merits, even though they include claims to independent and distinct inventions." (M.P.E.P. § 803, p. 800-4, Rev. 3, August 2005.)

There would be no serious burden because examining the recitations of Claims 64 and 65 is included in the examination of the recitations of Claims 1 and 5, respectively.

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

CONCLUSION

In view of the foregoing remarks, applicant respectfully submits that 1, 5, 7, 15, 17, and 63-65 are in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested. If the Examiner has any further questions, the Examiner is invited to contact the Applicant's attorney at the number provided below.

Respectfully submitted,

CHRISTENSEN O'CONNOR
JOHNSON KINDNESS^{PLLC}



Laura A. Cruz
Registration No. 46,649
Direct Dial No. 206.695.1725

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LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100